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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,328	10/21/2003	Gilad Israel Elbaz	16113-001001	2189
26192 7590 01/17/2008 FISH & RICHARDSON P.C. PO BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER COUGHLAN, PETER D	
			ART UNIT 2129	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/690,328	Applicant(s) ELBAZ ET AL.	
	Examiner Peter Coughlan	Art Unit 2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/21/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

1. This office action is in response to an AMENDMENT entered November 12, 2007 for the patent application 10/690328 filed on October 21, 2003.
2. All previous Office Actions are fully incorporated into this Non-Final Office Action by reference.

Status of Claims

3. Claims 1-31 are pending.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 10, and 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to

which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 10 and 23 have the ability to 'determine a strength of relationship' between a 'knowledge item' and it's 'related meaning concept.' This is a critical portion of the invention and the specification lacks details how this determination of 'strength' is generated.

Under section 2164.01(a) of the MPEP 7 areas need to be addressed for a test of enablement.

(A) The breadth of the claims. The dependent claims are concerned with some mathematical model which 'established a probability' for each meanings, 'determining a strength' between the meanings and 'adjusting the probability' based on strengths. There can be numerous methods for determining a 'strength.' Is a percentage which is determined by unstated inputted values? Is it a distance determined by one of many distance algorithms? The breath of the claims gives no indication how this is computed.

(B) The nature of the invention. The nature of the invention gives no insight how this value is computed. In the background of the invention is matching advertisement to the contents of a web page. This gives no indication about the algorithm to generate the determination of a strength.

(C) The state of the prior art. The major references Jones, McCandless do not suggest how this is can be accomplished. The reference Lang has a formula, but this is no indication which is parallel to the applicant's invention.

(D) The level of one of ordinary skill. There are so many ways which this 'determining a strength' can be accomplished using different concepts. For example is

the range of this determining of strength' between 0 and 1 or is it from 1 to ∞ ?

(E) The level of predictability in the art. The art pertains to generating advertising which is somehow related to the web page context. There is no standard within the art for generating this 'strength.'

(F) The amount of direction provided by the inventor. The inventor only provides a 'concept' of what is occurring by the invention. A guide or a map of the steps which take place within the invention but lacks specific details.

(G) The existence of working examples. There exists no working examples within the specification which clarifies how 'determining a strength' is generated.

(H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure. Since 'strength' is used in connection probabilities and the ability to adjust the probabilities, this leads to the possibility of very complex computations.

In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

These claims and/or specification must be amended or the claims must be withdrawn from consideration.

Claims 10, 13, 23 and 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use

the invention. Claims 13 and 26 have the ability to 'establishing a probability' in regards to each or a plurality of meanings and 'establishing a probability' for the meaning of the identified information that the knowledge item be resolved in part to the meaning of the identified information. The final probability is a percentage, but what is lacking is how this percentage is generated? Since there are two different functions which are 'establishing a probability' are used for are there two different algorithms as well? There is no detail within the specification which describes how these percentages are generated.

Under section 2164.01(a) of the MPEP 7 areas need to be addressed for a test of enablement.

(A) The breadth of the claims. The only limitation within the breadth of the claims is that the final answer is a probability (or percentage). There is no indication within the claims to illustrate how these percentages are generated.

(B) The nature of the invention. The nature of the invention gives no insight how these percentages are computed. In the background of the invention is matching advertisement to the contents of a web page. The generation of 'establishing a probability' in regards to each or a plurality of meanings and 'establishing a probability' for the meaning of the identified information that the knowledge item be resolved in part to the meaning of the identified information gives no insight how this is achieved.

(C) The state of the prior art. The major references Jones, McCandless do not suggest how this is can be accomplished. The reference Lang has a formula, but this is no indication which is parallel to the applicant's invention.

(D) The level of one of ordinary skill. There are so many different factors which can be incorporated to 'establishing a probability.' For example is the total number of meanings of the knowledge item taken into consideration? How is each individual meaning for a given knowledge item rated? None of these issues are addressed within the specification.

(E) The level of predictability in the art. The art pertains to generating advertising which is somehow related to the web page context. There is no standard within the art for generating this 'establishing a probability.'

(F) The amount of direction provided by the inventor. The inventor only provides the language of a 'establishing a probability' but does not suggest how these values are derived.

(G) The existence of working examples. These exists no working examples within the specification which clarifies how 'establishing a probability is generated.

(H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure. Since the only limitation of 'establishing a probability' is that the resulting value is between the range or equal to the endpoints from 0 to 1. With no guidelines or parameters to follow, even a random number generator would work for 'establishing a probability.'

In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

These claims and/or specification must be amended or the claims must be withdrawn from consideration.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCandless in view of Knobbblock, ('Web advertising', referred to as **McCandless**; 'Searching the World Wide Web', referred to as **Knobbblock**)

Claim 1

McCandless teaches receiving a knowledge item (**McCandless**, p9, C1:15-29; 'Knowledge item' of applicant is equivalent to 'keywords' of McCandless.) identifying information to be used in interpreting the knowledge item, the information identified as having a predefined relationship with the knowledge item (**McCandless**, p9, C2:39 through C3:5; 'Identifying information' of applicant is disclosed in part by the ability to generate 'personalized advertising' which has the characteristic of 'dynamic information' of McCandless.); determining at least one meaning of the identified information. (**McCandless**, p9, C2:39 through C3:5; 'Determining at least one meaning of the

identified information' of applicant is illustrated by the ability that 'you are in the market for a new car or microwave oven' of McCandless.)

McCandless does not teach determining a plurality of meanings of the knowledge item.

Knobblock teaches determining a plurality of meanings of the knowledge item. (Knobblock, p8, C3:27-38; 'plurality of meanings' of applicant is illustrated by the ability to generate a 'relevance' of Knobblock.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless by being able to generate meanings as taught by Knobblock to determining a plurality of meanings of the knowledge item.

For the purpose of searching for articles with the same meanings instead of only a keyword resulting with better output.

McCandless teaches selecting at least one of the plurality of meanings using the at least one meaning of the identified information. (McCandless, p9, C2:39 through C3:5; McCandless can generate personalized advertising. Being able to generate 'personalized advertising' of McCandless is equivalent to in part of 'selecting at least one of the plurality of meanings' of applicant. 'Identifying information' and be able to 'select at least one of the plurality of meanings' of applicant is equivalent to McCandless being able to generate 'personalized advertising'.)

McCandless does not teach recording the selected at least one of the plurality of meanings as an interpretation of the knowledge item.

Knobblock teaches recording the selected at least one of the plurality of meanings as an interpretation of the knowledge item. (**Knobblock**, p10, C1:29 through C2:4; 'Recording the selected' of applicant is equivalent to 'stockpiling' of Knobblock.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless by saving the meanings of a keyword as taught by Knobblock to recording the selected at least one of the plurality of meanings as an interpretation of the knowledge item.

For the purpose of avoiding duplicate determinations of a knowledge item.

Claims 2, 15

McCandless teaches wherein the knowledge item is a keyword received as input to a search engine. (**McCandless**, p9, C1:15-29; 'Keyword' of applicant is equivalent to 'keyword' of McCandless.)

Claims 3, 16

McCandless teaches wherein the identified information comprises articles. (**McCandless**, p9, C1:15-29; 'Articles' of applicant is equivalent to 'advertisement' of McCandless.)

Claims 4, 17

McCandless teaches wherein the articles comprise an advertisement from an advertiser who has bid on the knowledge item. (**McCandless**, p9, C1:15-29; 'Advertiser

who has bid' of applicant is equivalent to 'advertisers that bids the highest price' of McCandless.)

Claims 5, 18

McCandless teaches wherein the articles further comprise a web page associated with the advertisement. (**McCandless**, p8, C3:38 through p9, C1:14; 'Web page' of applicant is equivalent to 'page' of McCandless. 'Advertisement' of applicant is equivalent to 'banner' of McCandless.)

Claims 6, 19

McCandless teaches wherein the identified information further comprises data. (**McCandless**, p9, C3:6-23; 'Data' of applicant is disclosed by the 'time you saw the ad, which ad was shown, and whether you clicked on it' of McCandless.)

Claims 7, 20

McCandless teaches wherein the related data comprises cost per click data associated with the advertisement. (**McCandless**, p9, C1:15-29; 'Cost per click' of applicant is equivalent to 'cost per thousand(CPM)' of McCandless.)

Claim 14

McCandless teaches program code for receiving a knowledge item (**McCandless**, p9, C1:15-29; 'Knowledge item' of applicant is equivalent to 'keywords'

of McCandless.); program code for identifying information to be used in interpreting the knowledge item, the information identified as having a predefined relationship with the knowledge item (**McCandless**, p9, C2:39 through C3:5; 'Identifying information' of applicant is disclosed in part by the ability to generate 'personalized advertising' which has the characteristic of 'dynamic information' of McCandless.); program code for determining at least one meaning of the identified information. (**McCandless**, p9, C2:39 through C3:5; 'Determining at least one meaning of the identified information' of applicant is illustrated by the ability that "you are in the market for a new car or microwave oven' of McCandless.)

McCandless does not teach program code for determining a plurality of meanings of the knowledge item.

Knobblock teaches program code for determining a plurality of meanings of the knowledge item. (**Knobblock**, p8, C3:27-38; 'plurality of meanings' of applicant is illustrated by the ability to generate a 'relevance' of Knobblock.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless by finding a meaning as taught by Knobblock to have program code for determining a plurality of meanings of the knowledge item.

For the purpose of searching for articles with the same meanings instead of only a keyword resulting with better output:

McCandless teaches program code for selecting at least one of the plurality of meanings using the at least one meaning of the identified information. (**McCandless**, p9, C2:39 through C3:5; McCandless can generate personalized advertising. Being able

to generate 'personalized advertising' of McCandless is equivalent to in part of 'selecting at least one of the plurality of meanings' of applicant. 'Identifying information' and be able to 'select at least one of the plurality of meanings' of applicant is equivalent to McCandless being able to generate 'personalized advertising.')

McCandless does not teach program code for recording the selected at least one of the plurality of meanings as an interpretation of the knowledge item.

Knobblock teaches program code for recording the selected at least one of the plurality of meanings as an interpretation of the knowledge item. (**Knobblock**, p10, C1:29 through C2:4; 'Recording the selected' of applicant is equivalent to 'stockpiling' of Knobblock.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless by saving the meanings as taught by Knobblock to have program code for recording the selected at least one of the plurality of meanings as an interpretation of the knowledge item.

For the purpose of avoiding duplicate determinations of a knowledge item.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the

subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-13 and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of McCandless and Knobbloch in view of Lang. (U. S. Patent 5867799, referred to as **Lang**)

Claims 8, 21

McCandless and Knobbloch do not teach wherein determining the plurality of meanings of the knowledge item further comprises processing the knowledge item to determine any known associated concepts.

Lang teaches wherein determining the plurality of meanings of the knowledge item further comprises processing the knowledge item to determine any known associated concepts. (**Lang**, C11:8-17; To 'determine any known associated concepts' of applicant is achieved by 'probabilistic techniques ... the probability ... satisfies the user's information need' of Lang.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of McCandless and Knobbloch by making the connection from meanings to concepts as taught by Lang to determining the plurality of meanings of the knowledge item further comprises processing the knowledge item to determine any known associated concepts.

For the purpose of using the concepts to broaden the advertising horizon.

Claims 9, 22

McCandless and Knoblock do not teach wherein the plurality of meanings correspond to a plurality of associated concepts and wherein selecting the at least one of the plurality of meanings comprises selecting at least one of the associated concepts.

Lang teaches wherein the plurality of meanings correspond to a plurality of associated concepts and wherein selecting the at least one of the plurality of meanings comprises selecting at least one of the associated concepts. (**Lang**, C11:8-17, C3:33-43; 'Informons' of Lang is equivalent to information filtering in which entities of information relevant to the user or having 'meanings' of applicant. Thus the 'meanings' of applicant is equivalent to the 'informons' of Lang. The correspondence between meanings and concepts of applicant is disclosed by 'the probability that a particular term or concept, that occurs in an informon or that the informon satisfies the user's information need' of Lang.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of McCandless and Knoblock by selecting a meaning and corresponding concept as taught by Lang to have wherein the plurality of meanings correspond to a plurality of associated concepts and wherein selecting the at least one of the plurality of meanings comprises selecting at least one of the associated concepts.

For the purpose of establishing a starting point of advertising marketing

Claims 10, 23

McCandless and Knoblock do not teach establishing a probability for each of the plurality of meanings that the knowledge item should be resolved to the one of the plurality of meanings; determining a strength of relationship between each of the plurality of meanings and the at least one meaning of the identified information; and adjusting the probability for each of the plurality of meanings based on the strengths, wherein the adjusted probability is used in selecting the at least one of the plurality of meanings.

Lang teaches establishing a probability for each of the plurality of meanings that the knowledge item should be resolved to the one of the plurality of meanings (**Lang**, C11:18-65; 'Establishing a probability' of applicant is disclosed by the formula $p(H|D)$ of Lang.); determining a strength of relationship between (1) each of the plurality of meanings and (2) the at least one meaning of the identified information (**Lang**, C11:18-65; 'Determining the strength' of applicant is disclosed by the formula $-\log(p(D|H)) - \log(p(H))$ of Lang.); and adjusting the probability for each of the plurality of meanings based on the strengths, wherein the adjusted probability is used in selecting the at least one of the plurality of meanings. (**Lang**, C11:18-65; 'Adjusting the probability' of applicant is illustrated by the fact the formula $-\log(p(D|H)) - \log(p(H))$ can be maximized. This maximization of the formula of Lang is equivalent to 'adjusting the probability' of applicant.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of McCandless and Knoblock by using a relationship value between meanings for a

possible solution as taught by Lang to establish a probability for each of the plurality of meanings that the knowledge item should be resolved to the one of the plurality of meanings; determining a strength of relationship between each of the plurality of meanings and the at least one meaning of the identified information; and adjusting the probability for each of the plurality of meanings based on the strengths, wherein the adjusted probability is used in selecting the at least one of the plurality of meanings.

For the purpose of using an associated meaning based on a probability for finding a possible solution.

Claims 11, 24

McCandless and Knobblock do not teach wherein the plurality of meanings comprise a weighted vector of concepts.

Lang teaches wherein the plurality of meanings comprise a weighted vector of concepts. (Lang, C20:35-50; 'Weighted vector of concepts' of applicant is equivalent to 'the vector M_s , that are related to any concept C , may be looked up' of Lang.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of McCandless and Knobblock by using the industrial standard of weighted vectors as taught by Lang to have wherein the plurality of meanings comprise a weighted vector of concepts.

For the purpose of using established methods and algorithms which use weighted vectors for established reliable results.

Claims 12, 25

McCandless and Knoblock do not teach wherein the plurality of meanings comprise related clusters of words.

Lang teaches wherein the plurality of meanings comprise related clusters of words. (**Lang**, C20:35-50; A 'related cluster of words' of applicant can be seen as a vector 'Weighted vector of concepts' of applicant is equivalent to 'the vector Ms, that are related to any concept C, may be looked up' of Lang.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of McCandless and Knoblock by using clustering techniques as taught by Lang to have wherein the plurality of meanings comprise related clusters of words.

For the purpose of using distance between meanings of words to establish clusters of words based on a similar meaning.

Claims 13, 26

McCandless and Knoblock do not teach establishing a probability for each of the plurality of meanings that the knowledge item should be resolved in part to the one of the plurality of meanings; and establishing a probability for the meaning of the identified information that the knowledge item should be resolved in part to the meaning of the identified information.

Lang teaches establishing a probability for each of the plurality of meanings that the knowledge item be resolved in part to the one of the plurality of meanings (**Lang**,

C12:11-17; 'Establishing a probability for each of the plurality of meanings' of applicant is equivalent to 'each statistic can be computed for each concept' of Lang.); and establishing a probability for the meaning of the identified information that the knowledge item should be resolved in part to the meaning of the identified information. (Lang, C12:26-45; 'Establishing a probability for the meaning of the identified information' of applicant is disclosed by the formula ' $p(t_{i,d} = () \mid 1_d[c_k])$ ' of Lang.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of McCandless and Knobbloch by using a probability result to find a possible solution as taught by Lang to establish a probability for each of the plurality of meanings that the knowledge item should be resolved in part to the one of the plurality of meanings; and establishing a probability for the meaning of the identified information that the knowledge item should be resolved in part to the meaning of the identified information.

For the purpose of a finding a result to the problem.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject

matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of McCandless and Knobbloch in view of Oreizy. ('The web as enabling technology for software development and distribution', referred to as **Oreizy**)

Claim 27

McCandless teaches receiving a keyword (**McCandless**, p9, C1:15-29; 'Keyword' of applicant is equivalent to 'keywords' of McCandless.); identifying information to be used in interpreting the keyword, the information identified as having a predefined relationship with the keyword (**McCandless**, p9, C2:39 through C3:5; 'Identifying information' from a 'keyword' of applicant is disclosed in part by the ability in part to generate 'personalized advertising' which has the characteristic of 'dynamic information' of McCandless.); determining at least one meaning of the identified information (**McCandless**, p9, C2:39 through C3:5; 'Determining at least one meaning of the identified information' of applicant is illustrated by the ability that "you are in the market for a new car or microwave oven' of McCandless.); selecting at least one of a plurality of meanings (**McCandless**, p9, C2:39 through C3:5; McCandless can generate personalized advertising. Being able to generate 'personalized advertising' of McCandless is equivalent to in part of 'selecting at least one of the plurality of meanings' of applicant. 'Identifying information' and be able to 'select at least one of the plurality of

meanings' of applicant is equivalent in part to McCandless being able to generate 'personalized advertising.') of the keyword using the at least one meaning of the identified information. (**McCandless**, p9, C1:15-29; 'Keyword' of applicant is equivalent to 'keywords' of McCandless.)

McCandless and McCandless do not teach matching the keyword to content associated with a web page.

Oreizy teaches matching the keyword to content associated with a web page. (**Oreizy**, p85, C2:18-29; Matching a keyword with a web page is disclosed by 'keyword based web indexing' of Oreizy.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of McCandless and Knobbblock by using simple keyword matching with a web page as taught by Oreizy to have matching the keyword to content associated with a web page.

For the purpose of finding an exact match from the keyword for increased accuracy.

McCandless does not teach matching the keyword to an advertisement based at least in part on the selected at least one meaning.

Knobbblock teaches matching the keyword to an advertisement based at least in part on the selected at least one meaning. (**Knobbblock**, p10, C3:43 through p11, C11:11; 'Matching a keyword to an advertisement' of applicant is disclosed by 'checks the user's query terms against a list of keywords' of Knobbblock.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless by using keyword matching to an advertisement as

taught by Knobbblock to have matching the keyword to an advertisement based at least in part on the selected at least one meaning.

For the purpose of obtaining a better output from the search

McCandless teaches selecting the advertisement to associate with the content (**McCandless**, p8, C3:38 through p9, C1:14; 'Selecting the advertisement' of applicant is equivalent to 'banner ad is selected' of McCandless.); and outputting the selected advertisement. (**McCandless**, p8, C3:38 through p9, C1:14; 'outputting the selecting the advertisement' of applicant is equivalent to 'banner ad is selected and presented' of McCandless.)

Claim 28

McCandless does not teach wherein the identified information comprises text of advertisements associated with advertisers who have bid on the keyword.

Knobbblock teaches wherein the identified information comprises text of advertisements associated with advertisers who have bid on the keyword. (**Knobbblock**, p10, C3:43 through p11, C11:11; 'Matching a keyword to an advertisement' of applicant is disclosed by 'checks the user's query terms against a list of keywords that have been sold at a premium to the advertisers' of Knobbblock.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless by having advertisers bid on keywords as taught by Knobbblock to have wherein the identified information comprises text of advertisements associated with advertisers who have bid on the keyword.

For the purpose of generating a profit for those which provide the search results

Claim 29

McCandless does not teach wherein the identified information comprises destination web pages associated with the advertisements.

Knobblock teaches wherein the identified information comprises destination web pages associated with the advertisements. (**Knobblock**, p10, C3:43 through p11, C11:11; 'Identified information comprises destination web pages associated with the advertisements' of applicant is illustrated by 'serving web pages' through 'targeted advertising' of Knobblock.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless by outputting web addresses as taught by Knobblock to have wherein the identified information comprises destination web pages associated with the advertisements.

For the purpose of utilizing the ease of use to links of advertising pages such that a user can view an advertisement by a single click of the mouse.

Claim 30

McCandless does not teach wherein the identified information comprises other keywords bid on by advertisers.

Knobblock teaches wherein the identified information comprises other keywords bid on by advertisers. (**Knobblock**, p10, C3:43 through p11, C11:11; 'Keywords' of

applicant is equivalent to 'keywords' of Knobbblock. 'Keywords bid on by advertisers' of applicant is illustrated by ;keywords that have been sold at a premium to the advertisers' of Knobbblock.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless by offering other keywords for additional costs as taught by Knobbblock to have wherein the identified information comprises other keywords bid on by advertisers.

For the purpose of generating additional profits for the search provider.

Claim 31

McCandless teaches wherein the identified information comprises search results associated with the keyword. (McCandless, p9, C1:15-29, p9, C2:39 through C3:5; 'Keyword' of applicant is equivalent to 'keywords' of McCandless. 'Identifying information' of applicant is disclosed in part by the ability to generate 'personalized advertising' which has the characteristic of 'dynamic information' of McCandless.)

Response to Arguments

5. Applicant's arguments filed on November 12, 2007 for claims 1-31 have been fully considered but are not persuasive.

6. In reference to the Applicant's argument:

Rejections under section 112

Claims 1, 9-14, and 21-27 were rejected under § 112, first paragraph, as lacking written description. The Examiner stated that these claims contain the words "meanings" and/or "concepts" and that the specification fails to disclose the difference between these two words. The Examiner also stated that a synonym for "concept" is "meaning" in ROGET'S NEW MILLENIUM THESAURUS, (listed.). In the interview summary, it was stated that the Examiner is willing to withdraw the rejection with regard to "concepts".

Applicants appreciate the withdrawal of the rejection with regard to "concepts". With regard to "meanings", however, Applicants traverse the rejection. Applicants submit that the subject matter of the rejected claims has adequate written description in the present disclosure, including the "meanings" recited in the claims. The U.S. Court of Appeals for the Federal Circuit has articulated the written-description requirement as follows:

35 USC 112, first paragraph, requires a "written description of the invention" which is separate and distinct from the enablement requirement. The purpose of the "written description" requirement is broader than to merely explain how to "make and use"; the applicant must also convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention is, for purposes of the "written description" inquiry, whatever is now claimed.

Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 1562 (Fed. Cir. 1991). Thus, Applicants submit that the issue is whether the present disclosure conveys that, at the time of filing, Applicants were in possession of the inventions of the claims now rejected. Moreover, these inventions should be defined by what is now recited in the claims at issue.

First, it must be noted that "meanings" and "concepts", the terms central to the Examiner's rejection, were present in the claims as originally filed. For example, claim 1 mentioned "related meaning" and "knowledge item meaning" already when filed; likewise, dependent claim 8 mentioned "associated concepts" already when filed. Moreover, the specification as of the filing date is replete with mentions of meanings and concepts in the several examples that are described therein. See, e.g., Spec. paragraphs 0023, 0028, 0029, 0032, 0035, 0036 and 0047-0049. As such, the record

shows that Applicants were in possession of subject matter regarding "meanings" and "concepts" at the time of filing.

Second, the specification does describe meanings and concepts such that differences between them can be understood. See, e.g., the following statements:

Meaning can be a representation of context and can be, for example, a vector of weighted concepts or groups or clusters of words. Spec. paragraph 0020.

In one embodiment, determining the knowledge item meaning comprises determining which of the associated concepts represents the knowledge item meaning. Spec. paragraph 0028.

The above quotes are taken among a plentitude of other disclosure relating to the terms meaning and concept in the specification and illustrate that the two terms are related to each other. Therefore, the interpretation of meaning strictly as a synonym for concept does not seem to be consistent with how the terms are used in the specification or the claims. As such, the Examiner's interpretation may be incorrect.

Moreover, it seems that the Examiner may have misread the resource that was cited in support of the rejection (ROGET'S NEW MILLENNIUM THESAURUS, (1st ed.)). The 2007 edition of this thesaurus appears to be available online and lists the following terms as synonyms of concept:

abstraction, apprehension, approach, big idea*, brain wave*, brainchild*, conceit, conception, conceptualization, consideration, hypothesis, image, impression, intellection, notion, perception, slant, supposition, theory, thought, twist, view, wienie, wrinkle

ROGET'S NEW MILLENNIUM THESAURUS, First Edition (v 1.3.1), available at <http://thesaurus.reference.com/browse/concept>. The list does not include "meaning" as a synonym for concept. Thus, the cited ROGET'S thesaurus does not appear to support the Examiner's contention.

In any event, Applicants are not choosing any particular dictionary or thesaurus definition as a restriction on the interpretation of any claim term. Rather, Applicants submit that there is ample written description in the present disclosure showing that Applicants had possession of the subject matter regarding meanings and concepts at the time of filing. As such, Applicants request that this rejection for lack of written description be removed.

Examiner's response:

The original concern the Examiner had with the words 'concept' and 'meaning' is that they are synonyms per Roget's New Millennium thesaurus. (see below)

Roget's New Millennium™ Thesaurus - Cite This Source - Share This

Main Entry: idea

Part of Speech: noun

Definition: concept

Synonyms: abstraction, aim, approximation, belief, brainstorm*, clue, concept, conception, conclusion, conviction, design, doctrine, end, essence, estimate, fancy, feeling, flash*, form, guess, hint, hypothesis, import, impression, inkling, intention, interpretation, intimation, judgment, meaning, notion, object, objective, opinion, pattern, perception, plan, purpose, reason, scheme, sense, significance, solution, suggestion, suspicion, teaching, theory, thought, understanding, view, viewpoint

Source: *Roget's New Millennium™ Thesaurus, First Edition (v 1.3.1)*
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** = informal or slang*

During the interview it seemed to the Examiner that the applicant wished to have the word 'meaning' to be associated with a physical characteristic or ability, whereas the 'concept' would be a clustering of meanings. For example the 'meanings' of lettuce, celery, and cucumbers all have the meaning of 'green vegetable.' The 'concept' of these three items could be 'salad ingredients'. The Examiner suggested that the 'meanings' would be a subset of a 'concept.' The Examiner will withdraw the rejection based on this interruption of 'meaning' and 'concepts.'

7. In reference to the Applicant's argument:

Dependent claims 10, 13, 23 and 26 were rejected under § 112, first paragraph, for lack of written description regarding the terms "strength relationship" and "probability". The Examiner stated that the claims "state the use of two formulas which generate the 'strength' and 'probability' but the specification is silent on the composition of these formulas."

This rejection is traversed. Applicants submit that there are ample indications in the record that they had possession of this subject matter at filing.

First, it must be noted that the terms at issue here, like the ones in the rejection addressed above, were present in the claims as originally filed. As such, the record shows that Applicants were in possession of subject matter regarding "strength relationship" and "probability" at the time of filing.

Second, the claims at issue do not "state the use of two formulas ..." as the Examiner contends. Rather, claim 10 now recites, in relevant parts, "establishing a probability, for each of the plurality of meanings, that the knowledge item be resolved to the one of the plurality of meanings" and "determining a strength of relationship between (1) each of the plurality of meanings and (2) the at least one meaning of the identified information". There is no mention of a formula in the claim.

Moreover, the specification describes that probability establishment can be performed in block 300 of subroutine 212 (spec. paragraph 0046) and that strength determination can be performed in block 302 of the same subroutine (spec. paragraph 0047). Adjustment of probability using a determined strength (as also recited in the claim) can be performed in block 304 of the subroutine.

Applicants submit that there is ample written description in the present disclosure showing that Applicants had possession of the subject matter regarding probability establishment and strength determination at the time of filing. As such, Applicants request that this rejection for lack of written description be removed.

Examiner's response:

The specification lacks the information on how to generate 'strength relationship' or the two different types of 'probability.' These claims remain rejected under 35 U.S.C. §112. Office Action stands.

8. In reference to the Applicant's argument:

Dependent claims 10, 13, 23 and 26 were also rejected under § 112, second paragraph, as being indefinite due to the term "should be resolved". The Examiner stated that this is "a relative term".

Applicants respectfully disagree with the Examiner's contentions regarding this claim term, and pointed out during the interview that the term "should be resolved" relates to the term "probability" earlier in the claim. Nevertheless, to advance prosecution forward and without conceding that the rejection has merit, Applicants have eliminated the term "should" from the claims at issue. Accordingly, Applicants request that the rejection should be removed on this basis.

Examiner's response:

The Examiner notes the amended claims and withdraws the rejection.

9. In reference to the Applicant's argument:

Rejections under section 103

Claims 1-7, 14-20 and 27-31 were rejected under § 103 (a) as unpatentable over the "Web advertising" reference (McCandless) in view of the IndustryNet reference (Jones). Dependent claims 8-13 and 21-26 were rejected under § 103(a) as unpatentable over McCandless in view of Jones and U.S. 5,867,799 (Lang).

These rejections are traversed. Applicants submit that the subject matter of the rejected claims is patentable over the references of record.

Applicants' claim 1 is directed to a method for interpreting a knowledge item. A knowledge item is received, and information to be used in interpreting the knowledge item is identified. The information is identified as having a predefined relationship with

the knowledge item. The claim recites determining at least one meaning of the identified information, and determining a plurality of meanings of the knowledge item. At least one of the plurality of meanings is selected using the at least one meaning of the identified information. The selected at least one of the plurality of meanings is recorded as an interpretation of the knowledge item. None of the references of record disclose determinations of meaning, selection of a meaning, or recording of a selected meaning as recited in the claim.

Examiner's response:

A keyword is used on a search and using personal information results are returned. 'Identified information' of applicant is equivalent to the search results of the query. 'Determining at least one meaning of the identified information' of applicant is equivalent to 'direct feedback' of an advertisement which is imbedded in the search results of McCandless. (**McCandless**, p8, C2:11-14)

'Determining a plurality of meanings' of applicant is equivalent to 'find relevant articles by keyword' of Jones. (**Jones**, p54, C3:6 through p55:3) 'Selecting at least one of the plurality of meaning' of applicant is accomplished by using a 'user model' of Jones. 'Meaning of the identified information' of applicant is equivalent to 'the agent asks the user if the information in the article was interesting. (**Jones**, p54, C3:6 through p55:3) 'Recording the selected' of applicant is equivalent to 'the system stores every piece of information that the user chooses to read or ignore as a case' of Jones. (**Jones**, p58, C3:26-55) Office Action stands.

10. In reference to the Applicant's argument:

McCandless is a two-page article containing a high-level description of web advertising, mainly directed to the business aspects thereof, such as how web advertising differs from traditional advertising and what advertising models are used on the web. The Examiner noted that McCandless mentions "keywords used in a search", and thereafter appears to have misunderstood some other portions of McCandless. In reality, McCandless is not directed toward interpreting a knowledge item, and several steps of the present claim 1 are neither disclosed nor suggested by McCandless.

Examiner's response:

'Knowledge item' of applicant is equivalent to 'keywords' of McCandless.

(**McCandless**, p9, C1:15-29) Advertising is activated by a keyword used in a search.

(**McCandless**, p9, C1:15-29) Thus 'identifying information to be used in interpreting a knowledge item' of applicant s equivalent to 'advertisers can therefore carefully target or even custom generate ads, according to their degree of knowledge about an individual' of McCandless. (**McCandless**, p8, C2:3-10)

11. In reference to the Applicant's argument:

First, the Examiner cited to page 8, column 2, lines 3-10 of McCandless as disclosing identification of information to be used in interpreting a knowledge item, because that portion states "knowledge about an individual". Applicants respectfully disagree. The Examiner's interpretation of "identif[ied] information" in this portion of the claim appears to be inconsistent with how the Examiner interprets the term "identified information" that appears later in the claim (see below). As such, Applicants submit that McCandless does not disclose or suggest identification of information to be used in interpretation as recited in the claim.

Examiner's response:

The Examiner notes the typographical mistake made in the previous Office Action and has made the needed corrections. Thus 'identifying information to be used in

interpreting a knowledge item' of applicant s equivalent to 'advertisers can therefore carefully target or even custom generate ads, according to their degree of knowledge about an individual' of McCandless. (**McCandless**, p8, C2:3-10)

12. In reference to the Applicant's argument:

Second, the Examiner cited to page 8, column 2, lines 11-14 of McCandless as disclosing a determination of at least one meaning of the identified information. Applicants respectfully disagree. The cited portion describes that advertisers receive feedback on advertisement effectiveness by the extent to which users click on the ad. The fact that an ad that receives many clicks is considered effective has nothing to do with determining a meaning of identified information. The clicks do not inform the advertiser what is the meaning of knowledge the advertiser has about an individual. There is no mention of determining a meaning of any information in this portion of McCandless, let alone of information that has been identified as having a predetermined relationship with a knowledge item, as required by the present claim.

Moreover, the Examiner stated that "'Identified information' of applicant is equivalent to the search results of the query." This is directly contrary to the Examiner's interpretation above which stated that knowledge about an individual corresponds to the identified information. Also, the cited passage of McCandless does not mention any results of a search.

Examiner's response:

'Determining at least one meaning of the identified information' of applicant is illustrated by the ability that 'you are in the market for a new car or microwave oven' of McCandless. (**McCandless**, p9, C2:39 through C3:5) 'Identifying information' and be able to 'select at least one of the plurality of meanings' of applicant is equivalent to

McCandless being able to generate 'personalized advertising.' (McCandless, p9, C2:39 through C3:5) Office Action stands.

13. In reference to the Applicant's argument:

The Examiner conceded that McCandless does not teach determining a plurality of meanings of a knowledge item, selecting one of them, and recording the selection, as recited in the present claims. Applicants agree, with the addition that McCandless also fails to disclose or suggest other steps of the claims as discussed above.

The Examiner cited to Jones as providing the admittedly missing subject matter. However, Jones is also not directed toward interpreting a knowledge item, and several steps of the present claim 1 are neither disclosed nor suggested by Jones even when combined with McCandless.

The Examiner stated that "find relevant articles by keyword" of Jones page 54, column 3, lines 6-5 5 discloses a determination of a plurality of meanings of a knowledge item. Applicants respectfully disagree. The cited passage appears to describe searching by keyword, not determining the meaning of something, such as a knowledge item. In any event, the description fails to disclose determining a plurality of meanings of a knowledge item.

The Examiner stated that "user model" of Jones page 58, column 3, lines 26-55 discloses selecting at least one of the plurality of meanings. The Examiner stated that "the agent asks the user if the information in the article was interesting" is equivalent to "meaning of the identified information".

Applicants respectfully disagree. Jones mentions that a user model is built to represent the interests of a user based on information gathered by an agent. The model does not relate to a plurality of meanings of anything, let alone a knowledge item. The agent asks the user whether the article was interesting to gather information for building the user mode. The asking is not done to determine the meaning of a knowledge item.

The Examiner stated that "the system stores every piece of information that the user chooses to read or ignore as a case" of Jones page 58, column 3, lines 26-55 discloses recording the selected meaning. Applicants respectfully disagree. The storing of pieces

of user information in Jones is done to gather information for building the user mode. The storing is not done to record the meaning of a knowledge item.

As discussed above, even the combined disclosure of McCandless and Jones fails to disclose or suggest several steps of the present claim 1. Claim 1 and its dependent claims 2-13 are therefore patentable over McCandless and Jones. Independent claims 14 and 27 include similar or corresponding language. These claims and their dependent claims are therefore also patentable over the references.

Lang was cited as disclosing "processing ... to determine any known concepts". Applicants are not conceding that this characterization of Lang is correct, but submit that Lang nevertheless fails to teach or suggest the subject matter missing from McCandless and Jones. As such, the present claims are also patentable over Lang.

Examiner's response:

Jones is no longer used as a reference. Knobbblock is used to find 'relevance' between articles and keywords. 'Plurality of meanings' of applicant is illustrated by the ability to generate a 'relevance' of Knobbblock. (**Knobbblock**, p8, C3:27-38) Knobbblock teaches recording the selected at least one of the plurality of meanings as an interpretation of the knowledge item. (**Knobbblock**, p10, C1:29 through C2:4; 'Recording the selected' of applicant is equivalent to 'stockpiling' of Knobbblock.) Office Action stands.

Examination Considerations

14. The claims and only the claims form the metes and bounds of the invention.

"Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in

the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has the full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

15. Examiner's Notes are provided to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and sprit of compact prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but link to prior art that one of ordinary skill in the art would find inherently appropriate.

16. Examiner's Opinion: Paragraphs 12 and 13 apply. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

Conclusion

17. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure.

-U. S. Patent 6314420: Lang

-U. S. Patent 6308175: Lang

-U. S. Patent 6029161: Lang

-U. S. Patent 6012053: Pant

-U. S. Patent 5983214: Lang

-'Lycos: design choices in an Internet search service': Mauldin, M.I.

-'WISE: a World Wide Web resource database system': Budi Yuwono

-'Marketing power conversion products on the Internet': Jestice, I.

-'Helping teleworkers to help each other Co-operative learning through WWW':

Smith, C.

-'Negotiating a Web site agreement': Overly, M.R.

18. Claims 1-31 are rejected.

Correspondence Information

19. Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner Peter Coughlan, whose telephone number is (571) 272-5990. The Examiner can be reached on Monday through Friday from 7:15 a.m. to 3:45 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor David Vincent can be reached at (571) 272-3080. Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,
Washington, D. C. 20231;

Hand delivered to:

Receptionist,
Customer Service Window,
Randolph Building,
401 Dulany Street,
Alexandria, Virginia 22313,
(located on the first floor of the south side of the Randolph Building);

or faxed to:

(571) 272-3150 (for formal communications intended for entry.)

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Art Unit: 2129

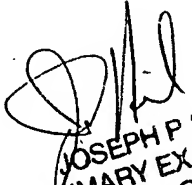
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Peter Coughlan

12/15/2005



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